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| EXAMINER | |
|---|---|
| SHIN, KYUNG H | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2143 | |

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/575,749 | ALBERTH JR. ET AL. | |
| | Examiner | Art Unit | |
| | Kyung H. Shin | 2143 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *28 July 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Response to Amendment*

1. Claims **1 - 19** are pending. Independent claims are **1, 8, 14, 18**.

### *Response to Arguments*

2. Applicant's arguments filed 7/28/05 have been fully considered but they are not persuasive.

2.1 Applicant argues that the referenced prior art does not disclose: " ... *first or second personal data storage device is accessible and usable only when first and second personal data storage devices are in communication with each other ...* " *(see Remarks Page 9, Lines 24-26)*, that smart card is inaccessible when not in use.

The Storck prior art discloses that data is not accessible and not usable when two specific carriers (personal data storage devices) are not in communication with each other. (see Storck col. 4, lines 52-58: the data is not accessible and usable (i.e. cannot be read without authorization such as the input of a personal identification number code) whether two specific carriers (i.e. personal data storage devices) are in communication with each other)

The Storck prior art discloses that authorization is required in order to perform data access transactions on a data carrier (i.e. smart card), then

access is not allowed without or before the completion of the authorization process. (see Storck col. 4, lines 52-58: authentication (i.e. code) is required in order to access data on the card)

In addition, the Storck prior art discloses the capability to split authorization between two cards. This requirement dictates the coupling (i.e. operative coupling) of two data carriers (i.e. smart cards) to complete authorization and remaining coupled for operation. No disclosure is stated requiring that the smart cards are uncoupled after authorization. (see Storck col. 12, lines 45-48: Two data carriers (i.e. smart cards) must be used together (i.e. coupled together) in order to complete authorization and access the data on the card. ) By definition, complimentary is defined as " ... complement or something that completes ... ". The two cards must operate together to complete authorization and for operation.

Once authorization has been completed, The Storck prior art discloses transferring data between data carrier devices (i.e. smart cards). (see Storck col. 4, line 52-58; col. 4, line 31-34: Principal objective of prior art is to transfer data (i.e. transaction) between a first and a second data carrier (i.e. smart cards) - " ... transferring data from one of said carriers to the other during a transaction between said first and second carriers ... ")

2.2 Applicant argues that the referenced prior art does not disclose: " ... *granting access to a third device to said personal data therein only when a second*

*data storage device is operatively coupled to a first data storage device ... "*

*(see Remarks Page 8, Lines 8-10)*

The Storck prior art discloses that data is accessible and usable (i.e. valid authorization to access data) to a third device only when the first and second personal data storage devices are in communication with each other. (see Storck col. 5, lines 8-15: Data can only be transferred between a first and a second personal data storage device when the first personal data storage device is authorized or operating at a pre-defined authorization level, to send data) ; col. 4, lines 31-34; col. 5, line 64 - col. 6, line 9: Data can be transferred between a first and second personal data storage devices coupled together for authorization and a third device for data transfer); col. 12, lines 45-48: The authorization level is divided between two personal data storage devices such that data transfers to a third device is possible only when a first and a second personal data storage device are coupled together or are used simultaneously (e.g. operatively coupled, operating at the same time).

2.3 Applicant argues that the referenced prior art does not disclose: *" ... a three party transaction between multiple devices ... " (see Remarks Page 8, Lines 3-4)*, access to third card only when two cards (card one and card two) are operatively coupled.

Storck in view of Kramer discloses transactions utilizing smart card technology with three devices interconnected for the completion of transactions through network communications. (see Kramer col. 4, lines 57-65; col. 140, lines 39-42: three party transactions) Two cards operatively coupled together has been previously disclosed. The third (i.e. one of the three) smart card is a vendor device as stated in applicant remarks. (see Remarks Page 7, Lines 8-9: *" ... as a terminal of a vendor ... compatible data equipment of the vendor ... "*) The Kramer prior art discloses one of the three devices is a vendor device. The designation of a vendor device as one of transaction devices indicates Electronic Commerce, which is based on data transfers between devices interconnected over a communication network. The Storck prior art discloses operation in an e-commerce type environment.

2.4 Applicant argues that the secondary reference and primary reference combination under 35 U.S.C. § 103 is not allowed due to nonobviousness. The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Furthermore, in response to applicant's arguments against the reference individually, one cannot show nonobviousness by attacking references individually where rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). .

Therefore, the rejection of claims 1-68 is proper and maintained herein.

***Claim Rejection – 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

**3. Claims 1 - 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Storck et al. (US Patent No. 5,434,395) in view of Kawan et al. (US Patent No. 6,289,324) and further in view of Kramer et al. (US Patent No. 6,324,525).**

**Regarding Claim 1** (Currently Amended), Storck discloses a personal data storage apparatus comprised of:

c) a second interface circuit coupled to said memory device and providing communications access to the second personal data storage device. (see Storck

col. 11, lines 34-51; col. 5, lines 16-24: interface circuit for data transfer between two data carriers or smart cards (i.e. data storage devices))

a) a first user personal data storage device including a memory device storing; (see Storck col. 11, lines 52-56: smart card memory utilization)

i) a first set of user data; (see Storck col. 11, lines 43-51: data storage)

ii) Storck discloses the usage of encryption technology. (see Storck col. 2, lines 58-59; col. 19, lines 56-59: encryption security techniques) Storck does not specifically disclose the usage of encryption keys for secure protection of data. However, Kawan discloses the usage of encryption keys with a first encryption key for encrypting at least part of said first set of user data; (see Kawan col. 5, lines 52-56; col. 9, lines 2-26; col. 10, lines 7-17: encryption keys used for secure protection of data)

b) Storck discloses the usage of smart card technology for transactions implementing split authorization which allows access only when two data carriers or smart cards are coupled together. (i.e. only when a second personal data storage device is operatively coupled to said first personal data storage device) (see Storck col. 12, lines 45-48; col. 5, line 64; col. 6, line 9) Storck does not specifically disclose a three party transaction between multiple devices. However, Kramer discloses a three party transaction, a first interface circuit coupled to said memory device granting conditional access to a third device to data therein using an appropriate data exchange protocol between the first

personal data storage device and the third device; (see Kramer col. 4, lines 57-65; col. 140, lines 39-42: three party transactions utilizing smart card technology)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Storck to securely protect data utilizing encryption keys as taught by Kawan and to enable performing a three party transaction utilizing smart card type devices as taught by Kramer. One of ordinary skill in the art would be motivated to employ Kawan in order to offer enhanced convenience and security completing transactions utilizing smart card technology (see Kawan col. 2, lines 12-17: " *... smart card that offers enhanced convenience when assisting a customer in executing a transaction ... smart card that can acquire information regarding a consumer's transactions and establish a system automated task for carrying out such financial transactions ...* ") and to employ Kramer in order to enable optimum and secure two party and three party electronic transactions. (see Kramer col. 3, lines 42-46: " *... allows for robustly secure two-party data transmission ... meet the ultimate need of the electronic commerce market for robustly secure three-party data transmission ...* ")

**Regarding Claims 2, 9** (Original), Storck discloses the personal data storage apparatus of claim 1 further comprised of a processor (see Storck col. 1, lines 33-36), operatively coupled to said memory device and to said first and second interface circuits. (see Storck col. 12, lines 7-18; col. 5, lines 42-47: coupled data carriers in communications for transactions)

**Regarding Claims 3, 10** (Original), Storck discloses the personal data storage apparatus of claim 1 wherein said second personal data storage device is operatively coupled to said first personal storage device using a mechanical coupling. (see Storck col. 18, lines 31-38; col. 5, lines 51-63: connection for data carrier (i.e. smart card) transactions)

**Regarding Claim 4** (Original), Storck discloses the personal data storage apparatus of claim 3 wherein said mechanical coupling is a connector. (see Storck col. 10, line 11-13: connector utilized for communications between data carriers)

**Regarding Claims 5, 11** (Original), Storck discloses the personal data storage apparatus of claim 1 wherein said second personal data storage device is operatively coupled to said first personal storage device using a wireless connection. (see Storck col. 19, lines 14-22: infrared (i.e. wireless) communications)

**Regarding Claims 6, 12** (Original), Storck discloses the personal data storage apparatus of claim 5 wherein said wireless connection is a radio link. (see Storck Fig. 15; col. 8, line 18-21: radio frequency (i.e. wireless) communications)

**Regarding Claims 7, 13, 16** (Original), Storck discloses the personal data storage apparatus of claim 1, where an agent of the issuer of the personal data storage

apparatus can recreate the user data from a single part of the personal data storage apparatus. (see Storck col. 7, lines 5-16; col. 11, lines 52-56; col. 12, lines 15-18: data copy techniques, transfer of data between different memory regions of data carrier (i.e. smart card))

**Regarding Claim 8** (Currently Amended), Storck discloses a personal data storage apparatus comprised of:

b) a second personal data storage device coupled to said first personal data storage device and being comprised of:

i) a second memory device storing; (see Storck col. 11, lines 52-56: smart card memory)

1) a substantially duplicate copy of said first set of user data; (see Storck col. 12, lines 24-26: data copied from one data carrier or smart card to another (i.e. all data on card equals duplicate copy))

d) whereby user data in either said first or second personal data storage device is accessible and usable only when said first and second personal data storage devices are in communication with each other. (see Storck col. 12, lines 45-48: split authorization requires both data carriers (i.e. smart cards) coupled together, data transactions only possible when two data carriers are coupled together)

a) a first personal data storage device comprising:

i) a first memory device storing; (see Storck col. 11, lines 52-56: smart card memory)

1) a first set of user data; (see Storck col. 11, lines 43-51: smart card user data stored)

2) Storck discloses the usage of encryption technology. (see Storck col. 2, lines 58; col. 19, lines 56-59: encryption security techniques) Storck does not specifically disclose the usage of encryption keys in the secure protection of data. However, Kawan discloses the usage of encryption keys with a first encryption key for encrypting at least part said first set of user data; (see Kawan col. 5, lines 52-56; col. 9, lines 2-26; col. 10, lines 7-17: encryption key utilization for secure protection of data carrier (i.e. smart card) data)

ii) a first interface circuit coupled to said memory device granting conditional access to data therein using a predetermined protocol and only when a second personal data storage device is operatively coupled to said first personal data storage device; (see Storck col. 11, lines 18; col. 12, lines 45-48: data transaction between two data carriers (i.e. smart cards))

iii) a second interface circuit coupled to said memory device and providing access to a second personal data storage device; (see Storck col. 11, lines 34-51; col. 5, lines 16-24: interface circuit for transactions between two data carriers (i.e. smart cards))

c) Storck discloses the usage of encryption technology. (see Storck col. 2, lines 58; col. 19, lines 56-59) Storck does not specifically disclose the usage of encryption keys in the secure protection of data. However, Kawan discloses the usage of encryption keys with a second encryption key for encrypting at least part said first set of user data; (see Kawan col. 5, lines 52-56; col. 9, lines 2-26; col. 10, lines 7-17: encryption key utilization for secure protection of data carrier (i.e. smart card) data)

ii) Storck discloses a second interface circuit coupled to said memory device granting conditional access to data therein using a predetermined protocol and only when said second personal data storage device is operatively coupled to said first personal data storage device; (see Storck col. 12, lines 45-48: split authorization requires two data carriers (i.e. smart cards) coupled before data transactions) Storck does not disclose three party transactions. However, Kramer discloses granting access to data when said second personal data storage device is operatively coupled to said first personal data storage device (i.e. a three party transaction)) (see Kramer col. 4, lines 57-65; col. 140, lines 39-42: three party transactions utilizing smart card technology)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Storck to securely protect data utilizing encryption keys as taught by Kawan and to enable performing a three party transaction utilizing smart card type devices as taught by Kramer. One of ordinary skill in the

art would be motivated to employ Kawan in order to offer enhanced convenience and security completing transactions utilizing smart card technology (see Kawan col. 2, lines 12-17) and to employ Kramer in order to enable optimum and secure two party and three party electronic transactions. (see Kramer col. 3, lines 42-46).

**Regarding Claim 14** (Currently Amended), Storck discloses a method of securing access to data stored in a personal data storage device comprised of the steps of:

a) storing personal data in first and second data storage devices that are capable of being operable coupled to each other; (see Storck col. 5, lines 1-7: data carriers (i.e. smart cards) coupled together for data transactions)

b) Storck discloses the usage of encryption technology. (see Storck col. 2, lines 58; col. 19, lines 56-59: encryption security techniques) Storck does not specifically disclose the usage of encryption keys in the secure protection of data. However, Kawan discloses the usage of encryption keys for encrypting said personal data in a first data storage device using a first encryption key and encrypting it in said second device using a second encryption key; (see Kawan col. 5, lines 52-56; col. 9, lines 2-26; col. 10, lines 7-17: encryption keys for secure protection of data carrier (i.e. smart card) data)

c) Storck discloses the usage of smart card technology for transactions. (see Storck col. 12, lines 45-48; col. 5, line 64; col. 6, line 9) Storck does not

specifically disclose a three party transaction between multiple devices. However, Kramer discloses a three party transaction, granting access to a third device to said personal data in either said first data storage device or said second data storage device only when said first and second storage devices are operatively coupled together. (see Kramer col. 4, lines 57-65; col. 140, lines 39-42: three party transactions utilizing smart card technology)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Storck to securely protect data utilizing encryption keys as taught by Kawan and to enable performing a three party transaction utilizing three smart card type devices as taught by Kramer. One of ordinary skill in the art would be motivated to employ Kawan in order to offer enhanced convenience and security completing transactions utilizing smart card technology (see Kawan col. 2, lines 12-17) and to employ Kramer in order to enable optimum and secure two party and three party electronic transactions. (see Kramer col. 3, lines 42-46).

**Regarding Claim 15** (Currently Amended), Storck discloses said first and second personal data storage devices are operatively coupled together through at least one of either a wireless data link or a mechanical connector. (see Storck col. 5, lines 1-7; col. 12, lines 45-48; col. 4, lines 31-34: split data carrier (i.e. smart card) authorization equals operatively coupled together data carriers (i.e. smart cards)) Storck does not specifically disclose the utilization of three party (i.e. three devices) transactions.

However, Kramer discloses the method of claim 14 wherein said step of granting access to a third device to said personal data in either said first data storage device or said second data storage device only when said first and second personal data storage devices are operatively coupled together. (see Kramer col. 4, lines 57-65; col. 140, lines 39-42: three party transaction utilizing smart card technology)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Storck to enable performing three party transactions utilizing smart card type devices as taught by Kramer. One of ordinary skill in the art would be motivated to employ Kramer in order to enable optimum and secure two party and three party electronic transactions. (see Kramer col. 3, lines 42-46)

**Regarding Claim 17** (Original), Storck discloses the usage of encryption technology. (see Storck col. 2, lines 58; col. 19, lines 56-59: encryption security techniques) Storck does not specifically disclose the usage of encryption keys in the secure protection of data. However, Kawan discloses the method of claim 14 wherein said first and second encryption keys are same. (see Kawan col. 5, lines 52-56; col. 9, lines 2-26; col. 10, lines 7-17; col. 4, lines 66-67: encryption keys utilization for protection of data, symmetric keys (i.e. same encryption keys))

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Storck to securely protect data utilizing symmetric encryption keys as taught by Kawan. One of ordinary skill in the art would be motivated

to employ Kawan in order to offer enhanced convenience and secure completing transaction utilizing smart card technology. (see Kawan col. 2, lines 12-17)

**5. Claims 18, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Storck et al. (US Patent No. 5,434,395) in view of Kawan et al. (US Patent No. 6,289,324).**

**Regarding Claim 18** (New), Storck discloses a method of securing access to data stored in a personal data storage device comprised of the steps of:

a) storing personal data in a smart card and an enabling key device that are capable of being operably coupled to each other; (see Storck col. 19, lines 51-56: smart card data storage)

c) prohibiting a transaction between the smart card and another device unless the smart card and the enabling key device are operatively coupled together. (see Storck col. 12, lines 45-48: authorization required before transactions, split authorization required two devices coupled together)

b) Storck discloses the usage of encryption technology. (see Storck col. 2, lines 58; col. 19, lines 56-59) Storck does not specifically disclose the usage of encryption keys in the secure protection of data. However, Kawan discloses the usage of encryption keys for encrypting said personal data in the smart card using a first encryption key and encrypting said personal data in the enabling key device

using a second encryption key; (see Kawan col. 5, lines 52-56; col. 9, lines 2-26; col. 10, lines 7-17: encryption key utilization for secure protection of smart card data)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Storck to securely protect data utilizing encryption keys as taught by Kawan. One of ordinary skill in the art would be motivated to employ Kawan in order to offer enhanced convenience and security completing transactions utilizing smart card technology. (see Kawan col. 2, lines 12-17)

**Regarding Claim 19** (New), Storck discloses the method of claim 18, wherein said step of prohibiting a transaction between the smart card and another device unless the smart card and the enabling key device are operatively coupled together (see Storck col. 5, lines 1-7; col. 12, lines 45-48: split authorization requires coupled devices) is comprised of the step of prohibiting the transaction unless the smart card and the enabling key device are coupled together through at least one of wither a wireless data link or a mechanical connector. (see Storck col. 8, lines 18-21; col. 10, lines 11-13: connection required for data transactions)

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyung H. Shin whose telephone number is (571) 272-3920. The examiner can normally be reached on 9 am - 7 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

K H S
Kyung H Shin
Patent Examiner
Art Unit 2143

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Oct. 16, 2005

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